

deformity arising from which I have already described as characterizing the injury. The direction of the arm, it has been stated, was in a line downwards, outwards, and slightly forwards; and the head of the bone appeared to be situated at the root of the acromion process,—behind the glenoid cavity, therefore, and above that part of it where the laceration of the capsule had taken place, and at which alone its reduction into the socket could be effected. In this position the displaced part would be covered by the scapular portion of the deltoid, and by the outer portions of the *infra-spinatus*, and *teres minor* muscles; and the parts in the state of the greatest tension would be the *pectoralis major* and *subscapularis* muscles, the distance between their points of origin and insertion being increased by the distortion resulting from the accident. The arm would be directed outwards by the action of the deltoid, and slightly forwards by that of the *pectoralis major* and *coraco-brachialis*, the latter of which muscles would also suffer a degree of tension from the injury. It would be prevented from proceeding farther forwards, and inwards across the chest, by the contact of the neck of the humerus with the inferior costa of the scapula and the neck of that bone; and, lastly, the head of the humerus would be retained in its position at the root of the acromion, by the tension of the integuments over it, and by the conjoined action of the *supra-spinatus* and others of the muscles proceeding from the scapula to the arm and fore-arm. It is probable that it is in this way that the bone will be ordinarily directed and fixed in the luxations backwards, though it might easily happen that the arm should be placed more closely to the side, and in a line more nearly parallel with the axis of the trunk, in a case where the traction caused at first by the *latissimus dorsi* and *teres major* should chance to proceed a little farther than it did in this instance; a circumstance which, it appears to me, would be likely to occur in the case of this accident happening to an individual, in whom, from the shortness of his clavicles, and the consequent forward and somewhat lateral position of the *scapula*, (constituting the disposition of the chest and shoulders termed sometimes the “*poitrine ailée*”) the former of these muscles might be supposed to act with increased advantage in antagonizing its opponent on the anterior part of the chest, the action of which would otherwise usually predominate, from the greater degree of tension to which it is subjected by the nature of the displacement.”

48. *A peculiar and undescribed injury of the Shoulder.* By G. J. GUTHRIE.—J. Cadman, a plasterer by trade, whilst employed in his daily work, felt the ladder on which he stood turn, and, after some effort to save himself, he fell with it, his left elbow striking the ground, whilst his shoulder rested against one of the steps of the ladder, in a way he cannot distinctly explain. He felt that he had sustained a severe injury in the shoulder, and the elbow was much grazed. He was brought immediately to the hospital, but there was so much swelling that the house-surgeon, Mr. Dasent, could not make out the nature of the injury, and sent to me. I saw him about three hours after the accident, and the most remarkable and striking appearance was a fold, or pucker, of the skin, about the size of the half of half-a-crown, situated over the middle of the pectoral muscle, where it forms the anterior fold of the axilla; a hard substance could be felt below this, and extending above it towards the coracoid process, which could not be distinguished on account of the swelling, and it had been supposed that this substance was the coracoid process broken off; the head of the humerus could be very indistinctly felt on the outer part of the glenoid cavity, or something like it; the arm was very moveable in every direction, and the elbow could be brought close to the side, and made to strike the ribs without difficulty. I decided that it was a fracture and not a dislocation, but the nature of which I did not understand, and hoped it would become apparent when the swelling had subsided. The forearm was bent, the arm brought close to the side in a splint, leeches and cold lotions were applied, and repeated until the swelling very slowly subsided.

I was now satisfied that the humerus had been broken at its anatomical neck, and forced through the pectoral muscle, the fascia and skin covering which, offering a sufficient resistance to prevent it passing through them, and forming a compound dislocation, causing the bone, however, to pass upwards, and puckering the skin by carrying it along with it. The arm was shorter, and the retraction of the *pectoralis major*, and, probably, of the *subscapularis*, had drawn the

bone more into the situation the head of the humerus usually occupies when dislocated under the pectoral muscle. The shape of the broken end of the bone was satisfactory as to its being a broken bone, but I was not at all pleased with its situation, and as no common ordinary extension moved it downwards, I caused him to be largely bled, and gave him tartar emetic, in different doses, to twelve grains, during an hour and a quarter placing him under a gentle but gradually increasing extension in the pullies. I found I could bring the bone down to its natural situation, as to length, but I could not make it remain in its proper place; there was, therefore, nothing to be done but to allow nature to work for herself, and she has certainly worked wonders, for, at this moment, Cadman suffers from one inconvenience only, and that is, that he is unable to touch the ceiling with the hand of the injured side at the same distance he can with the other; he is obliged to be five or six inches nearer to it, from the arm making a greater angle with the head than on the sound side. In all other respects he can do his work just as well as before. When he sits in a chair, with the forearm bent, resting on his thigh, and the hand supine, the prominence of the broken bone is very remarkable, and, on placing a dry bone by the side of it, it appears to correspond to the small tubercle on the inner side, and also to a part of the great tuberosity on the outside. The hollow between seems to be that for the passage of the long head of the biceps, but whether this tendon runs in it, or not, I cannot ascertain. The tendon of the subscapularis appears to be attached to the inner and back part of the small tuberosity, and to have drawn it inwards, whilst that of the pectoralis major, which is well defined, has drawn it inwards and forwards.

The portion of the head of the bone, on the whole, perhaps, of the contiguous surfaces, remains attached *in situ*, with a part of the great tuberosity, but how far, or how much of the muscles inserted into this process remain with it and the head, I cannot ascertain; I should think but little of the *teres minor*.

The arm moves with perfect ease in every direction; when it is rotated outwards and backwards, the broken end of the humerus seems as though it were going to come through the skin, it is so prominent; and when the arm is raised as high as it can be done, the prominence of the bone is seen above the shoulder, as it then rides as high as the clavicle.

Mr. White thinks he has seen a case something like it, from there having been the same sort of pucker in the skin in front; and Mr. Cusack, of Dublin, thinks he has met with one of the same kind, from having also seen the pucker described; both these cases did well, but with unseemly shoulders.

I am of opinion that the elbow came first to the ground, but that the step of the ladder struck almost simultaneously against the head, or, rather, across the neck of the humerus, and that the effect of the first blow, which would have caused a dislocation, was thus modified, and gave rise to a fracture. It is not, after all, of any consequence to know how the thing happened, but it is of importance to know that, if nothing is done, nature will right herself so as to recover the use of the arm.

Surgery is not, however, satisfied with this, and my object, in a future case of this kind, now that I think I understand it, would be to prevent the deformity, which, in a woman's arm, is considerable, although much less than I expected, for the pucker has disappeared, and the humerus, under use, has resumed so much of its natural direction, that I should never have thought of extension by the pullies if it had always been the same. The pointed ends of the fracture will get rounded off, and form a small rounded extremity of bone, and a kind of false joint with the parts around. There is, I presume, some ligamentous union with the head of the humerus.

In a case of this kind, in future, I should make extension until the bone resumes its proper place, but this must be done very carefully, for I am not sure it could be done effectively without tearing the skin of the pucker or fold I have described, certainly not without great risk of doing it, which would render the accident a very dangerous one.

If the bone could be brought into its proper place, of which, from this and other causes I have some doubt, it is probable it would not be easily retained by padding the axilla, and other means which would, at the time, suggest themselves to you, and, if it were, it is possible that bony union, in such a situation, might be

more detrimental to the free use of the arm than the mode of union which nature has adopted. I am inclined to believe that the capsular ligament of the joint is not torn, or, at least, not extensively, but this must be a matter of conjecture.—*Lancet*, Dec. 23, 1837.

49. *VELPEAU'S Treatment of Fractures.*—The fracture being reduced, which M. Velpeau thinks should always be immediately effected, he surrounds the limb, from the roots of the fingers or toes, up to its proximal extremity, with a slightly compressing bandage, so as to maintain the fractured pieces in a convenient position; and instead of using splints and compresses, he makes the envelope itself, which the bandage forms, stiff. He at first thought of using for this purpose the solidifying liquid of M. Larrey (albumen), but afterwards he found it preferable for the purpose to make use of starch, prepared after the method used by washerwomen, in imitation of the example of M. Sentin, of Brussels. This latter surgeon, however, uses a different apparatus, viz: a double Scultetus' bandage, and splints of double layers of card-board.

The dressing of the whole apparatus is effected in from two to four days. When this has once taken place, the limb and the bandage are so exactly moulded to one another, that displacement is impossible. The compression being everywhere equal and moderate, supports the tissues, and does not produce any inconvenience. The patients can turn themselves and move about in their beds as if they had only a simple contusion of the leg. They are not obliged to remain confined and immovable for six weeks or two months; but may, without inconvenience, sit up on rather a high seat (for they may slightly flex the leg,) and may walk about with the assistance of crutches, and supporting the foot in a great stirrup tied round the neck.—*Gazette Médicale*, Oct. 7, 1836.

50. *Case of Rupture of an Aneurism of the Common Carotid and Ligature of that Artery near its origin from the Innominate.* By T. ARGYLL ROBERTSON, M. D., of Edinburgh.—The following instance of aneurism, besides being interesting in several points, appears more particularly worthy of being placed upon record, as being one of the few cases in which a ligature has been applied to one of the larger arteries of the body, *nearest* to their common origin from the heart, with perfect ultimate success.

Major —, the subject of the case, is now in his fifty-second year. In April, 1836, while hunting, his horse, when at full speed, put its foot into a rabbit-hole, by which both it and its rider were brought to the ground with great violence. Major — received a severe wound over the left parietal bone, which bled profusely, and he remained for a short time stunned, and in a state of insensibility. From that period he suffered from stiffness and pain in the right side of the neck, resembling what is usually termed a crick, accompanied by shooting pains over the whole right side of the head; occasional attacks of giddiness, slight strabismus, and double vision followed, the last to so great a degree that he was forced to give up his favourite amusement of hunting, every gate, fence, &c. appearing to him double. The sight was particularly confused when looking straight forward, and still more so to the right. He likewise lost all idea of distances. On shutting either eye vision again became distinct. The motions of the iris in each eye were perfectly natural. The appetite was good, and bowels regular. Pulse rather full, but in other respects natural. In addition to the above symptoms, in December, 1836, he began to suffer occasionally from a feeling of numbness and coldness of the left arm and leg. At this period he placed himself under the care of Professor Alison and myself. Looking upon the symptoms as indicating a tendency to an apoplectic attack, we placed him upon a regulated diet, his bowels were kept open, leeches were ordered every second or third day to the temples, or behind the ears; he had cupping-glasses applied upon two or three occasions. The head was shaved and sponged several times a day with cold water, and he was desired to take regular but moderate exercise, and to reside quietly at his seat in the country. Under this treatment his health was much improved, and his vision was almost perfectly restored.

About the middle of January last he first discovered a swelling on the right side of the neck, accompanied by enlarged tonsils, slight sore throat, and some difficulty in swallowing. The swelling in the neck was supposed to be simply an en-